BSc in Psychology
Department of Psychology

Stigma and attitude towards help-seeking behavior in relation to mental health

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Student: Sigríður K. Jónsdóttir
ID Number: 271090-2859
Supervisor: Birna Baldursdóttir
Foreword

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

This thesis was completed in the Spring of 2020 and may therefore have been significantly impacted by the COVID-19 pandemic. The thesis and its findings should be viewed in light of that.
Abstract
In general, over the past decades, mental health problems have been regarded in a negative way. Although, this has improved in the past few years and the discussion about mental health problems has become more open. The aim of this research was to examine whether perceived public and personal stigma, as well as, reasons for not seeking help for mental health problems differed by gender, age, education and/or income. Also, whether these background variables could predict people’s help-seeking behavior. To address this, a translated version of General Help-Seeking Questionnaire (GHSQ), and a translated version of Discrimination-Devaluation (D-D) Scale were used. Participants were 192 in total, thereof 70.3% females and 29.7% males, with the age range from age 18 or younger to 78 or older. They were recruited through Facebook where a questionnaire was posted on the researcher’s page. The results of this research showed that males and older individuals had the highest personal stigma, females and older individuals were likeliest to find it too expensive to seek help, and the main predictive factors for help-seeking were age and public stigma. These findings underline the importance of reducing stigma towards mental health problems, and the high value of decrease the cost of services provided by mental health professionals.

Keywords: attitude, mental health, stigma, help-seeking

Útadráttur
Undanfarna áratugi hefur viðhorf fólks gagnvart geðrænum vandamálu verið neikvætt, en þó hefur það batað með árunum og umræðan um geðræn vandamál hefur orðið opnari. Markmið þessarar rannsóknar var að skoða hvort viðhorf þátttakenda gagnvart geðrænum vanda, sem og ástæður fyrir því að leita sér ekki hjálpar væri mismunandi eftir kyni, aldrí, menntun og/eða innkomu. Einnig hvort þessar bakgrunnsbreytur spáí fyrir um hvert fólk leitar sér hjálpar við geðrænum vandamál. Til þess að athuga þetta var notuð íslensk útgáfa af General Help-Seeking Questionnaire (GHSQ), sem og íslensk útgáfa af Discrimination-Devaluation (D-D) Scale. Þátttakendur voru í heildina 192, þar af voru 70,3% konur og 29,7% karlar á aldursbilinu 18 ára og yngri til 78 ára og eldri. Þeim var safnað í gegnum Facebook þar sem spurningalista var deilj á síðu rannsakanda. Niðurstöður rannsóknarinnar sýnda að karlar og eldri einstaklingar voru með meira neikvætt viðhorf til þess að leita sér hjálpar en aðrir þátttakendur. Konur og eldri einstaklingar voru líklegust til þess að finnst of kostnafarsamt að leita sér hjálpar og helstu forsårþættir fyrir því að leita sér hjálpar voru aldur og neikvætt viðhorf almannings til geðrænna vandamála. Þessar niðurstöður undirstrika mikilvægi þess að draua úr neikvædu viðhorfu almannings til geðrænna vandamála, sem og að lækka kostnað á þjónustu hjá geðheilbrigðisstarfsmönnum.

Lykilord: geðheilsa, viðhorf, fordómar, leit að hjálp
Stigma and attitude towards help-seeking behavior in relation to mental health

Over the last decades, mental health has become an increasingly more acknowledged field of interest. Mental disorders are widespread and a leading cause of disability and mortality. It is estimated that mental disorders affect around 13-17% of individuals worldwide (Insel, 2009; Sowers, Dulmus, & Linn, 2019; Steel et al., 2014; Vigo, Thornicroft, & Atun, 2016; Walker, McGee, & Druss, 2015; Whiteford et al., 2013). According to World Health Organization (WHO) (2019) people with severe mental disorders die earlier than the general population, estimating their life span to be ten to twenty years shorter. WHO also estimates that by 2030 depression will be the number one cause of disability worldwide (Lépine & Briley, 2011; Sowers et al., 2019).

People’s attitude towards seeking help from psychologists or psychiatrists have been negative for a long time, but fortunately, it has improved significantly over the last decades (Angermeyer, Auwera, Carta, & Schomerus, 2017). Despite that, many individuals with mental disorders still remain untreated (Kazdin, 2019; McNicholas, Rooney, & Holme, 2019). Research has shown that 52-74% of people with mental disorders in USA and Europe do not receive treatment (Alonso et al., 2004; Kessler et al., 2005; Thornicroft, 2007; Wittchen & Jacobi, 2005), and as high as 85% in less developed countries (Demyttenaere et al., 2004). Therefore, the importance of increasing intentions to help-seeking is paramount.

Peak periods for mental health and wellbeing are adolescence and young adulthood (De Girolamo et al., 2012; Kessler et al., 2007; Kessler & Wang, 2008; Rickwood et al., 2005). Untreated mental disorders in these periods may diminish functioning and have long-term negative effects on an individual’s life (Kazdin, 2019), influencing health, occupational, academic, and social outcomes (Breslau et al., 2008; Ettner et al., 1997; Kessler et al., 1998). This suggests that seeking help and intervening early with effective treatments can have long-term benefits.
Help-Seeking

Help-seeking is a form of coping that is often based on social relationships and interpersonal abilities (Rickwood et al., 2005). It is the process of seeking help from others in terms of understanding, receiving advice, information or support when feeling distressed for any reason. Help-seeking can be described as informal, referring to seeking help from friends and family, and formal, referring to seeking help from professional sources, such as, psychologists, physicians and teachers. Research has concluded that people most often seek help from their partner (Eisenberg, Hunt, Speer, & Zivin, 2011), friends, and family (Pahwa et al., 2017; Rickwood et al., 2005; Rickwood et al., 2007; Wilson et al., 2005).

A pervasive worldwide problem regarding help-seeking are delays and failure to seek help after the first onset of mental disorders (Christiana et al., 2000; Wang et al., 2007). This also applies in well-developed countries with specialized mental health services where barriers to primary care are few (Brandstetter et al., 2017). Wang et al. (2005) concluded that delays for mood disorders ranges from 6 to 8 years and 9 to 23 years for anxiety disorders. These delays were associated with early age of onset, older individuals, males, and other factors such as poor education and racial/ethnic minority. Research has shown that the longer people wait to seek help, the worse they will respond to a treatment (Altamura et al., 2008; de Diego-Adelino et al., 2010; Ghio, Gotelli, Marcenaro, Amore, & Natta, 2014). Therefore, it is particularly important for people’s well-being to identify symptoms of mental disorders and seek professional help as early as possible in order to decrease the development and impact of the disorders (Schomerus et al., 2019; Vos et al., 2012; Wakschlag et al., 2019).

Reasons for not Seeking Help

Understanding why people do not seek help, or drop out of treatment, is essential for developing plans and policies in order to reduce barriers (Luitel, Jordans, Kohrt, Rathod, & Komproe, 2017). Research has found several barriers for people not seeking help, including:
stigma, believing that they can deal with the problem on their own, people not having the knowledge where to go for help, confidentiality issues, lack of service access, treatment being too expensive, not believing that treatment is effective (Gulliver et al., 2010; Luitel et al., 2017; Mojtabai, 2009; Rickwood et al., 2005; Rickwood et al., 2007), lack of perceived need for treatment, and believing that the problem will resolve itself (Luitel et al., 2017). Reducing these barriers could increase the probability for individuals to seek help.

One crucial factor that affects individual’s help-seeking is stigma, resulting in people with mental disorders not seeking help (Gulliver et al., 2012; Yap, Reavley, & Jorm, 2013). WHO (2013) has emphasized that stigma significantly influences mental health prognosis and in their mental health action plan for 2013-2020 the key target was reduction of stigmatization. The first systematic review to examine the impact stigma has on mental health help-seeking was conducted by Clement et al. (2015), based on databases from 1980 to 2011. This review identified 144 studies, including 90,189 participants that met the inclusion criteria. The outcome revealed that stigma seems to have small to moderate negative effects on help-seeking. Stigma barriers, most frequently associated with reduced help-seeking, were related to stigmatizing views about oneself and stigma related to seeking help or to receive a treatment. Similar to these results, another systematic review (Angermeyer et al., 2017) based on 12,424 references, addressed that prominent barriers to help-seeking were self-stigma and individual stigmatizing attitudes.

**Psychological Services in Iceland**

Psychological services in Iceland are not subsidized by the Health Insurance and access to services for people with mental disorders is limited, in addition to high cost. A parliamentary bill has been presented with the aim of ensuring access to psychology services, stating that by improving access to preventive resources, it would have a long-term positive economic impact, as well as improving quality of life (Þingskjal 842, 2018-2019).
According to a European health survey (Hagstofa Íslands, 2017), 33% of Icelanders thought they could not afford mental health services and therefore had to abnegate it. Regarding individual’s income, results revealed that 45% of individuals in the lowest income bracket had to abnegate services in opposition to 21% of those in the upper income bracket. The same study concluded that Iceland was in fourth place among the European countries that participated, with a large number of people showing symptoms of depression, and women being in the majority thereof. The highest rate of depression was found among young people (15-24 years old) and people 65 years and older (Hagstofa Íslands 2017).

Current study

According to the literature above, the aim of this study was to examine whether reasons for not seeking help for mental health problems differed by gender, age, education, and income. Also, whether perceived public and personal stigma differed by the same background variables. Lastly, predictive factors affecting people’s help-seeking behavior for mental health problems were examined. The following research questions were put forward; 1) Do reasons for not seeking help for mental health problems differ by gender, age, education, and income?; 2) Does perceived public and personal stigma differ by gender, age, education, and income?; 3) Does participants’ background, perceived public stigma and/or personal stigma predict their help-seeking behavior?

Method

Participants

In this study a convenience sample was used which consisted of 192 participants, whereof 70.3% (N = 135) were females and 29.7% (N = 57) were males. The age groups ranged from 29 years and younger (33.3%), 30-47 years old (29.2%), and 48 years and older (37.5%). Participants’ education ranged from having finished primary school (16.7%), graduated from high school or finished apprenticeship (35.9%), having finished a bachelor’s
degree (15.6%), master’s degree (15.6%), or PhD degree (1.6%). Education rate of 3.6% of the participants was defined as “other”. Participants’ income groups per month before taxes ranged from having 0-400 thousand ISK (45.8%), 401-600 thousand ISK (24.7%), and 601 thousand ISK or more (29.5%). To be eligible to participate in the study participants had to be able to read and understand Icelandic since both the instructions and the questionnaire were in Icelandic. Participants were recruited through Facebook where the questionnaire was posted on the researcher’s page, and people were asked to share it on their own Facebook pages. All participants who took part in the study did so of their own free will and did not get any reward for their participation. All data was without personal identification and therefore untraceable.

Measures

Participants answered an online survey consisting of 22 questions in four parts. They were asked questions in relation to their background, sources they were most likely to seek help from if they were having mental problems, and if they would not seek help what the possible reasons could be. Lastly, they were asked questions about perceived public stigma (which will be preferred as public stigma from now on) and personal stigma towards help-seeking.

Background variables. The background questions regarded gender, age, highest education, and income per month. The options for gender were male, female and other. For age-groups, the options were twelve, ranging from age 18 or younger to 78 or older, with each option having a five-year interval. Options for highest education were six, ranging from elementary school to PhD’s. For income the options ranged from zero to 200 thousand ISK per month, to more than a million ISK per month for total income before taxes.

Help-seeking. General Help-Seeking Questionnaire (GHSQ) was used to measure participants future intentions on help-seeking (Rickwood et al., 2005). The scale does not
exist in Icelandic, therefore it was translated for the current study. The first research to emphasize the validity and reliability of the GHSQ was provided by Wilson et al. (2005). Wilson et al. results revealed that the structure of GHSQ supports the use of different types of problems (e.g., suicidal thoughts), and different help sources. GHSQ in Wilson et al. research had a Cronbach’s alpha coefficient of .85 for suicidal and non-suicidal problems indicating a reliable and validated measurement tool.

Participants in the current study were asked to indicate how likely they were to seek help if they were to experience a personal or an emotional problem during the next four weeks, from a number of formal and informal sources. Those sources included, for instance, partners, parents, mental health professionals, doctors and teachers. They also indicated how likely or unlikely they were not to seek help from anyone. The choices for each source were on 7-point Likert scale ranging from “extremely unlikely” (coded as 1) to “extremely likely” (coded as 7) to seek help. GHSQ in the current research had a Cronbach’s alpha coefficient of .60 for formal and informal sources, indicating an acceptable level of reliability.

In addition to using the GHSQ to measure help-seeking behavior, the participants were asked “If you would not seek help for personal or emotional problems, what would be the likeliest reason for it?”. The options were selected based on research that revealed reasons for not seeking help (Gulliver et al., 2010; Luitel et al., 2017; Mojtabai, 2009; Rickwood et al., 2005; Rickwood et al., 2007). The question included options where more than one could be selected, for instance; “I do not think the problem is severe enough”, “I find it too expensive”, “I am ashamed of seeking help”, “I am not sure where I could seek help”, “I do not believe it will help me”, and “I think I can resolve it on my own”.

**Stigma.** An adapted version of the Discrimination-Devaluation (D-D) Scale was used in this study, a version adapted by Eisenberg et al. (2009), first developed by Link and colleagues (Link, 1987; Link, Cullen, Struening, Shrout, & Dohrenwend, 1989). Since the
scale does not exist in Icelandic, it was translated for the current study. The D-D scale is a sub-scale on public stigma and personal stigma. The public stigma refers to negative attitudes and prejudice towards individuals with mental disorders, held by people in a society (Corrigan, 2004). Personal stigma refers to people’s own stigmatizing attitudes regarding mental health problems (Eisenberg et al., 2009). Eisenberg et al. conducted a research study where they examined the association of college students’ help-seeking behavior on both public stigma and personal stigma. The internal reliability for the D-D scale in their research study was high, for both public stigma (Cronbach’s α = .89), and personal stigma (Cronbach’s α = .78).

The public stigma part of the D-D scale consisted of 12 statements where participants were asked how much they agreed or disagreed with each of them. The statements began with “Most people believe/think/would” followed by a particular type of person, example of discrimination, or an accepting view or behavior. Examples of statements are: “Most people would like to be a close friend of a person who has had help due to mental disorder”, “Most people think less of those who have received mental health treatment”, and “Most people believe that a person who has received mental health treatment is as trusting as the average person”. The same applied to the personal stigma part of the D-D scale which consisted of three statements, but instead of “Most people”, the statements began with “I”. These statements referred to a negative attitude such as “…would think less of someone…”, an accepting behavior such as “…would accept as a close friend…”, and an accepting attitude such as “…think someone is just as trustworthy”. The response options for both sub-scales were on a 6-point Likert scale coded in numbers 1 to 6: “strongly disagree”, “disagree”, “somewhat disagree”, “somewhat agree”, “agree”, and “strongly agree”. Higher numbers indicated higher stigma. For each individual the average across the 12 statements was calculated.
Several variables for public and personal stigma were reversed. Values of questions that were presented in a positive way were reversed for consistency with the other variables related to stigma. The Cronbach’s alpha was used to test the internal reliability for public stigma (Cronbach’s $\alpha = .88$), and for personal stigma (Cronbach’s $\alpha = .87$). Reliability was relatively high for both variables, therefore an average of the 12 variables for public stigma were computed into a new variable named “Public stigma”. The average of the three variables for personal stigma were computed into a new variable named “Personal stigma”.

**Procedure**

An online survey was posted on the researcher’s Facebook page in March 2020 and people were asked to share the link of the survey. By clicking the link, the online survey opened in Google Forms, and before participants began answering the questionnaire an information letter appeared for them to read. The letter stated the aim of the study; to examine people’s attitude towards help-seeking behavior. They were told that the estimated time to complete the survey was five to ten minutes. Participants were informed that no risk should be involved in participation and they could discontinue the questionnaire at any time, and could skip answering any questions if they wished. It was stated that if participants experienced any discomfort during the study, they could contact a psychologist for counselling, once, free of charge. They were also informed that by answering the survey, they would be giving their informed consent.

**Research design and data analysis**

In this cross-sectional research study, the independent variables were gender, age, education, and income. The dependent variables were attitude towards help-seeking behavior and help sources, and public and personal stigma. The study was quantitative, involving between-groups design with between-groups variables referring to the difference between participants regarding their gender, age, education and income.
Multiple linear regression was used to examine whether participants’ background, public stigma and/or personal stigma predicted their help-seeking behavior. All assumptions were met in concerns of normality, multicollinearity, homoscedasticity, and linearity.

Independent samples t-test was used to examine whether there were significant differences between public and personal stigma by gender or education level. All assumptions were met, including normality, homogeneity of variance, data was continuous, and measures were independent.

One-way ANOVA was used to examine whether there was a significant difference between public and personal stigma by age or income. Most of the assumptions were met, variables were on applicable scales, and the observations were independent of each other. Concerning the assumption of homogeneity of variance between groups, it was mostly met. All data was analyzed using Statistical Package for the Social Sciences (IBM SPSS Statistics 26).

**Results**

**Descriptive statistics**

Descriptive statistics for the main variables in the study are shown in Table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>192</td>
<td>1.00</td>
<td>2.00</td>
<td>1.70</td>
<td>0.46</td>
</tr>
<tr>
<td>Age</td>
<td>192</td>
<td>1.00</td>
<td>3.00</td>
<td>2.04</td>
<td>0.84</td>
</tr>
<tr>
<td>Education</td>
<td>185</td>
<td>1.00</td>
<td>2.00</td>
<td>1.45</td>
<td>0.50</td>
</tr>
<tr>
<td>Income</td>
<td>190</td>
<td>1.00</td>
<td>3.00</td>
<td>1.84</td>
<td>0.85</td>
</tr>
<tr>
<td>Public stigma</td>
<td>192</td>
<td>1.25</td>
<td>5.08</td>
<td>2.91</td>
<td>0.80</td>
</tr>
<tr>
<td>Personal stigma</td>
<td>192</td>
<td>1.00</td>
<td>5.67</td>
<td>1.86</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Table 1 shows that participants did, in general, to some extent disagree with the fact that most people had stigma towards those with mental health problems ($min = 1.25$, $max =$
5.08, $M = 2.91, SD = 0.80$). However, participants did disagree with the fact that they themselves had stigma towards mental health problems ($min = 1.00, max = 5.67, M = 1.86, SD = 0.85$).

Table 2 shows that overall, highest number of participants would seek help from a partner (56.6%), a friend (51.7%) or a mental health professional (44%) if they were having mental health problems.

Table 2. Estimated likelihood of seeking help from various sources

<table>
<thead>
<tr>
<th>Help sources</th>
<th>$N$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partner</td>
<td>152</td>
<td>56.6</td>
</tr>
<tr>
<td>Friend</td>
<td>147</td>
<td>51.7</td>
</tr>
<tr>
<td>Parent</td>
<td>133</td>
<td>41.4</td>
</tr>
<tr>
<td>Family member / other relative</td>
<td>133</td>
<td>32.3</td>
</tr>
<tr>
<td>Mental health professional</td>
<td>141</td>
<td>44.0</td>
</tr>
<tr>
<td>Phone help line</td>
<td>125</td>
<td>8.0</td>
</tr>
<tr>
<td>Family doctor / GP</td>
<td>148</td>
<td>36.5</td>
</tr>
<tr>
<td>Religious leader</td>
<td>128</td>
<td>5.5</td>
</tr>
<tr>
<td>Teacher</td>
<td>124</td>
<td>3.2</td>
</tr>
<tr>
<td>Someone else not listed above</td>
<td>124</td>
<td>7.3</td>
</tr>
<tr>
<td>I would not seek help from anyone</td>
<td>130</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Overall reasons for not seeking help among participants are presented in Table 3.

Table 3. Overall reasons for not seeking help

<table>
<thead>
<tr>
<th>Statements</th>
<th>$N = 173$</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I do not think the problem is severe enough”</td>
<td>48.6%</td>
</tr>
<tr>
<td>“I do not feel bad enough to seek help”</td>
<td>32.4%</td>
</tr>
<tr>
<td>“I find it too expensive”</td>
<td>41.0%</td>
</tr>
<tr>
<td>“I am shy of seeking help”</td>
<td>20.8%</td>
</tr>
<tr>
<td>“I am ashamed of seeking help”</td>
<td>12.1%</td>
</tr>
<tr>
<td>“I am not sure where I could seek help”</td>
<td>16.2%</td>
</tr>
<tr>
<td>“I do not believe it will help me”</td>
<td>13.9%</td>
</tr>
<tr>
<td>“I think I can resolve it on my own”</td>
<td>41.0%</td>
</tr>
<tr>
<td>“I believe this will pass away”</td>
<td>38.2%</td>
</tr>
<tr>
<td>“I am not ready to tell anyone”</td>
<td>13.9%</td>
</tr>
</tbody>
</table>
As seen in Table 3, the most rated statements among participants were “I do not think the problem is severe enough” (48.6%), “I find it too expensive” (41%), and “I think I can resolve it on my own” (41%).

**Inferential statistics**

To test the first research question, if reasons for not seeking help for mental health problems did differ by gender, age, education, and income both an independent samples t-test and ANOVA were conducted (see Table 5 and 6).

Table 5. *Independent samples t-test for “not seeking help” by gender and education*

<table>
<thead>
<tr>
<th>Statements</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>“I do not think the problem is severe enough”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>0.44</td>
<td>0.50</td>
<td>-0.726</td>
<td>171</td>
<td>.469</td>
</tr>
<tr>
<td>Female</td>
<td>119</td>
<td>0.50</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university degree</td>
<td>88</td>
<td>0.48</td>
<td>0.50</td>
<td>-0.048</td>
<td>165</td>
<td>.962</td>
</tr>
<tr>
<td>University degree</td>
<td>79</td>
<td>0.48</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I find it too expensive”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>0.28</td>
<td>0.45</td>
<td>-2.511</td>
<td>112.85</td>
<td>.013</td>
</tr>
<tr>
<td>Female</td>
<td>119</td>
<td>0.47</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university degree</td>
<td>88</td>
<td>0.47</td>
<td>0.50</td>
<td>1.465</td>
<td>164.26</td>
<td>.145</td>
</tr>
<tr>
<td>University degree</td>
<td>79</td>
<td>0.35</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>“I think I can resolve it on my own”</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>54</td>
<td>0.56</td>
<td>0.50</td>
<td>2.603</td>
<td>98.06</td>
<td>.011</td>
</tr>
<tr>
<td>Female</td>
<td>119</td>
<td>0.35</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university degree</td>
<td>88</td>
<td>0.41</td>
<td>0.49</td>
<td>-0.112</td>
<td>165</td>
<td>.911</td>
</tr>
<tr>
<td>University degree</td>
<td>79</td>
<td>0.42</td>
<td>0.50</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
As seen in Table 5 the statements “I find it too expensive” and “I think I can resolve it on my own” differed between genders. Females were more likely to find it too expensive to seek help ($M = 0.47, SD = 0.50$), than males ($M = 0.28, SD = 0.45$). Males were more likely to think they could resolve the problem on their own ($M = 0.56, SD = 0.50$), than females ($M = 0.35, SD = 0.48$).
As seen in Table 6 the statement “I do not think the problem is severe enough” differed between age, and “I find it too expensive” differed between age and income. Participants aged 29 years and younger were most likely to think the problem would not be severe enough to seek help ($M = 0.62, SD = 0.49$). However, participants aged 30-47 years were most likely to find it too expensive to seek help ($M = 0.52, SD = 0.50$). Participants with 601 thousand ISK and more were least likely among the income groups to state that they find it too expensive to seek help ($M = 0.24, SD = 0.43$). Therefore, to answer the first research question, the reasons for not seeking help do differ by gender, age, and income.

To test the second research question, if public and personal stigma differs by gender, age, education, and income, an independent samples t-test and ANOVA were conducted (see Table 7 and 8). Table 7 shows the result from independent samples t-test for public and personal stigma in relation to gender and education.

**Table 7. Statistics for independent samples t-test on stigma by gender and education**

<table>
<thead>
<tr>
<th>Public stigma</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>2.94</td>
<td>0.76</td>
<td>0.295</td>
<td>190</td>
<td>.768</td>
</tr>
<tr>
<td>Female</td>
<td>135</td>
<td>2.90</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university degree</td>
<td>101</td>
<td>2.95</td>
<td>0.73</td>
<td>0.547</td>
<td>159.85</td>
<td>.585</td>
</tr>
<tr>
<td>University degree</td>
<td>84</td>
<td>2.89</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal stigma</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>2.11</td>
<td>0.89</td>
<td>2.707</td>
<td>190</td>
<td>.007</td>
</tr>
<tr>
<td>Female</td>
<td>135</td>
<td>1.75</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No university degree</td>
<td>101</td>
<td>1.87</td>
<td>0.84</td>
<td>0.106</td>
<td>183</td>
<td>.916</td>
</tr>
<tr>
<td>University degree</td>
<td>84</td>
<td>1.86</td>
<td>0.89</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 8 shows the results from ANOVA for public and personal stigma in relation to age groups and income.

Table 8. *ANOVA analysis on stigma by age groups and income*

<table>
<thead>
<tr>
<th>Public stigma</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 years old and younger</td>
<td>64</td>
<td>2.77</td>
<td>0.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-47 years old</td>
<td>56</td>
<td>2.90</td>
<td>0.83</td>
<td>1.973</td>
<td>2, 189</td>
<td>.142</td>
</tr>
<tr>
<td>48 years old and older</td>
<td>72</td>
<td>3.04</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-400 thousand ISK</td>
<td>87</td>
<td>3.00</td>
<td>0.82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401-600 thousand ISK</td>
<td>47</td>
<td>2.80</td>
<td>0.79</td>
<td>1.079</td>
<td>2, 187</td>
<td>.342</td>
</tr>
<tr>
<td>601 thousand ISK and over</td>
<td>56</td>
<td>2.86</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal stigma</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>F</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29 years old and younger</td>
<td>64</td>
<td>1.64</td>
<td>0.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-47 years old</td>
<td>56</td>
<td>1.82</td>
<td>0.97</td>
<td>5.215</td>
<td>2, 189</td>
<td>.006</td>
</tr>
<tr>
<td>48 years old and older</td>
<td>72</td>
<td>2.09</td>
<td>0.87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-400 thousand ISK</td>
<td>87</td>
<td>1.74</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401-600 thousand ISK</td>
<td>47</td>
<td>1.91</td>
<td>0.99</td>
<td>1.857</td>
<td>2, 187</td>
<td>.159</td>
</tr>
<tr>
<td>601 thousand ISK and over</td>
<td>56</td>
<td>2.02</td>
<td>0.88</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Tables 7 and 8 it can be seen that personal stigma did differ between genders (*p* = .007) and age groups (*p* = .006) but no other difference was found. Males had significantly higher personal stigma than females, *t*(190) = 2.71, *p* = .007. A Bonferroni test showed significant difference in personal stigma between the oldest age group and the youngest (*p* = .005). The oldest age group had the highest personal stigma (*M* = 2.09, *SD* = 0.87), and the youngest age groups had the lowest (*M* = 1.64, *SD* = 0.64). Therefore, the second research
question was partly true, as a statistical difference was found in personal stigma depending on gender and age.

To test the third research question, whether participants' background, public stigma and personal stigma predicted their help-seeking behavior, correlations between these variables were examined. Linear multiple regression was also used to examine the predictions.

Table 9 shows correlations between informal and formal help-seeking sources in relation to background variables, public stigma and personal stigma.

**Table 9. Correlations between all variables**

<table>
<thead>
<tr>
<th>INFORMAL HELP</th>
<th>Correlation (r)</th>
<th>G</th>
<th>A</th>
<th>E</th>
<th>I</th>
<th>PPS</th>
<th>PSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (A)</td>
<td>.042</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (E)</td>
<td>-.043</td>
<td>.061</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (I)</td>
<td>-.253**</td>
<td>.243**</td>
<td>.380**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public stigma (PPS)</td>
<td>-.027</td>
<td>.126</td>
<td>-.022</td>
<td>-.082</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal stigma (PSS)</td>
<td>-.216**</td>
<td>.214**</td>
<td>-.020</td>
<td>.137</td>
<td>.487**</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FORMAL HELP</th>
<th>Correlation (r)</th>
<th>G</th>
<th>A</th>
<th>E</th>
<th>I</th>
<th>PPS</th>
<th>PSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (G)</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age (A)</td>
<td>.000</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (E)</td>
<td>-.024</td>
<td>.060</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income (I)</td>
<td>-.176*</td>
<td>.328**</td>
<td>.375**</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public stigma (PPS)</td>
<td>-.042</td>
<td>.158</td>
<td>-.079</td>
<td>-.111</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal stigma (PSS)</td>
<td>-.244**</td>
<td>.245**</td>
<td>-.008</td>
<td>.149</td>
<td>.437**</td>
<td>1.000</td>
<td></td>
</tr>
</tbody>
</table>

* Significant p < .05; ** Significant p < .01

As seen in Table 9 a significant negative correlation was found between both informal and formal help sources regarding gender and income/personal stigma, meaning that males’ income and personal stigma is higher than womens’. A positive correlation was found
between both informal and formal help regarding income and age/education, meaning that higher age and higher education levels predict higher income. A positive correlation was also found between both informal and formal help regarding personal stigma and age/public stigma, meaning that higher age and more public stigma, increases personal stigma. Lastly, a positive correlation was found between public stigma and age, meaning that with higher age, the public stigma is higher.

Table 10 shows regression analysis for informal and formal help-seeking sources in relation to background variables, public stigma and personal stigma.

Table 10. Regression analysis on help-seeking sources

<table>
<thead>
<tr>
<th>Informal help</th>
<th>Model 1 ($p = .104$)</th>
<th>Model 2 ($p = .118$)</th>
<th>Model 3 ($p = .038$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Gender</td>
<td>.328</td>
<td>.316</td>
<td>.084</td>
</tr>
<tr>
<td>Age</td>
<td>-.366</td>
<td>.174</td>
<td>-.170*</td>
</tr>
<tr>
<td>Education</td>
<td>.417</td>
<td>.306</td>
<td>.115</td>
</tr>
<tr>
<td>Income</td>
<td>-.049</td>
<td>.191</td>
<td>-.023</td>
</tr>
<tr>
<td>Public stigma</td>
<td>-.186</td>
<td>.176</td>
<td>-.084</td>
</tr>
<tr>
<td>Personal stigma</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Formal help</th>
<th>Model 1 ($p = .027$)</th>
<th>Model 2 ($p = .037$)</th>
<th>Model 3 ($p = .063$)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>$\beta$</td>
</tr>
<tr>
<td>Gender</td>
<td>.072</td>
<td>.307</td>
<td>.019</td>
</tr>
<tr>
<td>Age</td>
<td>.550</td>
<td>.176</td>
<td>.263**</td>
</tr>
<tr>
<td>Education</td>
<td>.318</td>
<td>.299</td>
<td>.092</td>
</tr>
<tr>
<td>Income</td>
<td>-.336</td>
<td>.189</td>
<td>-.164</td>
</tr>
<tr>
<td>Public stigma</td>
<td>-.166</td>
<td>.170</td>
<td>-.080</td>
</tr>
<tr>
<td>Personal stigma</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant $p < .05$; ** Significant $p < .01$
In Model 1 on informal help-seeking, the background variables together explain 4.8% of the variance in help-seeking behavior but the model is not significant, $F(4, 156) = 1.96, p = .104$. For formal help-seeking, the background variables explain 7.2% of the variance and Model 1 is significant, $F(4, 146) = 2.82, p = .027$. As seen in Table 10, the variable that significantly predicts help-seeking from informal and formal help sources is age. In relation to informal help, age negatively predicts help-seeking. For one unit of increase in age, help-seeking behavior decreases with .170 units, meaning that with increased age, the likelihood of seeking help from informal sources decreases. However, for formal help sources, age positively predicts help-seeking. For one unit of increase in age, help-seeking behavior increases with .263 units, meaning that with increased age, the likelihood of seeking help from formal sources increases.

Model 2 shows that for informal help-seeking, the model as a whole explains 5.5% of the variance of help-seeking behavior but the model is not significant, $F(5, 155) = 1.79, p = .118$. However, Model 2 for formal help-seeking is significant, $F(5, 145) = 2.44, p = .037$ and explains 4.6% of the variance in help-seeking behavior. Age has a significantly positive effect on help-seeking from formal help sources, holding that the other independent variables are constant. For one unit of increase in age, help-seeking behavior increases with .280 units, meaning that increased age increases the likelihood of seeking help from formal help sources.

Model 3 shows that by adding personal stigma to the regression on informal help-seeking, the model as a whole explains 8.2% of the variance in help-seeking behavior and is significant, $F(6, 154) = 2.29, p = .038$. Age, public stigma and personal stigma significantly predict help-seeking from informal help sources, holding that the other independent variables are constant. Age negatively predicts help-seeking, for one unit of increase in age, help-seeking behavior decreases with .178 units, meaning that with increased age, the likelihood of seeking help from informal help sources decreases. Public stigma negatively predicts help-
seeking, for one unit of increase in public stigma, help-seeking behavior decreases with .176 units, meaning that with increased public stigma, the likelihood of seeking help from informal sources decreases. Personal stigma positively predicts help-seeking, for one unit of increase in personal stigma, help-seeking behavior increases with .198 units, meaning that with increased personal stigma, the likelihood of seeking help from informal sources increases. Regarding formal help-seeking, Model 3 explains 7.9% of the variance but is not significant, $F(6, 144) = 2.05, p = .063$. For formal help-seeking, age positively predicts help-seeking behavior. For one unit of increase in age, help-seeking behavior increases with .285 units, meaning that with increased age, the likelihood of seeking help from formal sources increases. Therefore, to answer the third research question, higher aged predicted decreased likelihood of seeking help from informal sources and increased likelihood of seeking help from formal sources. Higher public stigma decreased the likelihood of seeking help from informal help, in contrast, higher personal stigma increased the likelihood of it.

**Discussion**

The purpose of this study was to examine whether reasons for not seeking help for mental health problems differs by gender, age, education and/or income. Public and personal stigma were also examined in relation to these background variables. Lastly, it was explored whether these four variables could predict people's help-seeking behavior.

The main findings of this study were that the likeliest reasons for not seeking help when having mental health problems were that the problem would not be severe enough, services were too expensive, and the belief that they could resolve the problem on their own. The main predictive factors for help-seeking were age and public stigma. Overall, participants disagreed to some extent that people in general had stigma towards individuals with mental health problems, and disagreed with the fact that they themselves had personal
stigma towards help-seeking, which is in line with previous findings (Angermeyer et al., 2017; Clement et al., 2015).

The first research question was whether reasons for not seeking help for mental health problems differed by gender, age, education, and income. Results showed that females were more likely than males to find it too expensive to seek help. In contrast, males were more likely than females to think they could resolve the problem on their own. The younger participants were more likely to state that the problem would not be severe enough to seek help, and the older participants were more likely to find it too expensive. Regarding income, those with the highest income were least likely to find it too expensive to seek help. These results were consistent with previous findings (Gulliver et al., 2010; Luitel et al., 2017; Mojtabai, 2009; Rickwood et al., 2005; Rickwood et al., 2007) which concluded that the likeliest reasons for not seeking help were that the problem would not be severe enough, it would be too expensive, and that they could resolve the problem on their own. As Luitel et al. (2017) stated, it is vital to understand why people do not seek help in order to reduce these barriers, and increase the probability of people seeking help. In concerns of the cost, in the European health survey (Hagstofa Íslands, 2017) it was concluded that 33% of Icelanders had to abnegate mental health services due to high cost, which confirms the importance of decreasing the cost of it.

The second research question was whether public and personal stigma differed by gender, age, education, and income. The results concluded that males had significantly higher personal stigma than females, and based on Clement et al. (2015) results it may be concluded that males fail to seek treatment because of personal stigma. This is consistent with Wang et al. (2005) results which concluded that males were likely to fail or delay seeking help. The current research also concluded that the oldest age group had significantly higher personal stigma than the younger ones.
The third research question was whether participants’ background, public stigma and personal stigma predicted their help-seeking behavior. Results showed that with higher age, participants were more likely to seek help from formal sources than from informal sources. This is not consistent with previous findings (Eisenberg et al., 2011; Pahwa et al., 2017; D. Rickwood et al., 2005; D. J. Rickwood et al., 2007; Wilson et al., 2005) which stated that people most often seek help from informal sources. Public stigma predicted help-seeking behavior in a way that more public stigma decreased the likelihood of participants seeking help from informal sources. That is consistent with previous findings (Gulliver et al., 2012; Yap et al., 2013) which stated that stigma affected help-seeking behavior in a way that people do not seek help. However, personal stigma increased the likelihood of seeking help from informal sources, which came as a surprise and is inconsistent with Clement et al. (2015) findings. Their findings showed that personal stigma was associated with reduced help-seeking. Results of current study also indicated that for individuals with higher age and more public stigma, personal stigma would increase, assuming it would then increase the likelihood of not seeking help. However, it is worth mentioning that the models did not explain the variance of the help-seeking variables very well, ranging from 4.6 to 8.2%. This gives an indication that other factors could explain predictions of help-seeking better, which would be interesting to examine in further research.

The current study had some limitations. Participants were gathered with a convenience sample from Facebook, therefore the generalizability of the sample is unclear and the estimates can be biased. Also, there was a gender difference, females were in the vast majority, and males in the minority. In concerns of personal stigma, it is possible that participants understated their true levels of stigma towards themselves because they were reluctant to admit to themselves, or others, that they had attitudes towards mental health, which might be considered socially undesirable. Lastly, it might differ what people think is
having a personal or emotional problem. Some people might take it more seriously than others (e.g., those who are depressed), as a result, those who think the problem is not that serious do not see a reason to seek help. What might strengthen this is that 48.6% of the participants would not seek help if they were having mental problems because they would think the problem was not severe enough. Despite these limitations, this study also has its strengths. To the author’s best knowledge this is the first study in Iceland on this subject and the results demonstrate the importance of decreasing stigma towards mental health problems. Also, internal reliability for the Icelandic version of the D-D scale that was used was excellent, for public stigma (Cronbach’s $\alpha = .88$), and for personal stigma (Cronbach’s $\alpha = .87$).

In sum, the conclusion is that even though stigma towards mental health has decreased for the last decades, it still exists in the society to some degree. In order to reduce this stigma, it is important to open the discussion even more, especially considering that Iceland was in fourth place among the European countries showing symptoms of depression according to Hagstofa Íslands (2017). As stated in a review by Kazdin that can, for example, be done through social networking (e.g., Facebook, Instagram, Youtube), television, or radio, by presenting information about mental health and available interventions that could help people. An important factor in increasing the likelihood of people seeking help is to reduce stigma towards mental health problems, improve accessibility for all social classes, lower the cost of professional services, and offer various intervention options because one option is not suitable for everyone. This research has shown to some extent that stigma is still present in the modern society, however, to be able to generalize that statement, further research and examination is needed.
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https://doi.org/10.1093/ije/dyu038


